

CONSTRUCTION OF SPECIFIED ROADS

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SCHEDULE OF ITEMS (Timber Sale)

Timber Sale Low Pole Stewardship

Road No. 6300131

Road Name _____

Length (Miles) 0.51

Item Number	Description	Method of Meas.	Unit	Quantity	S.R.C Unit Price	Total
15101	Mobilization	AQ	Lump Sum	1.00	\$ 978.02	\$ 978.02
20103	Clearing and grubbing, disposal of tops and limbs f logs f, stumps f	CQ	Acre	0.25	\$ 1,601.63	\$ 400.41
30318	Road reconditioning, roadbed, compaction method (a)	CQ	Mile	0.51	\$ 3,156.51	\$ 1,609.82

SUB-TOTAL: \$ 2,988.25

TOTAL ALL ROADS: \$ 12,732.74

SCHEDULE OF ITEMS

(Timber Sale)

Timber Sale Low Pole Stewardship

Road No. 6300140

Road Name N/A

Length (Miles) 0.27

Item Number	Description	Method of Meas.	Unit	Quantity	S.R.C Unit Price	Total
15101	Mobilization	AQ	Lump Sum	1.00	\$ 593.68	\$ 593.68
20103	Clearing and grubbing, disposal of tops and limbs f logs f, stumps f	CQ	Acre	0.58	\$ 1,115.85	\$ 647.19
30318	Road reconditioning, roadbed, compaction method (a)	CQ	Mile	0.27	\$ 1,349.48	\$ 364.36

SUB-TOTAL: \$ 1,605.23

TOTAL ALL ROADS: \$ 12,732.74

SCHEDULE OF ITEMS

(Timber Sale)

Timber Sale Low Pole Stewardship
Road Name N/A

Road No. 6305311
Length (Miles) 0.53

Item Number	Description	Method of Meas.	Unit	Quantity	S.R.C Unit Price	Total
20103	Clearing and grubbing, disposal of tops and limbs f logs f, stumps f	CQ	Acre	1.16	\$ 1,601.63	\$ 1,857.89
30318	Road reconditioning, roadbed, compaction method (a)	CQ	Mile	0.53	\$ 1,349.48	\$ 715.22

SUB-TOTAL: \$ 2,573.11

TOTAL ALL ROADS: \$ 12,732.74

SCHEDULE OF ITEMS

(Timber Sale)

Timber Sale Low Pole Stewardship

Road No. 6305315

Road Name N/A

Length (Miles) 0.05

Item Number	Description	Method of Meas.	Unit	Quantity	S.R.C Unit Price	Total
20103	Clearing and grubbing, disposal of tops and limbs f logs f, stumps f	CQ	Acre	0.10	\$ 1,601.63	\$ 160.16
30318	Road reconditioning, roadbed, compaction method (a)	CQ	Mile	0.05	\$ 1,173.11	\$ 58.66

SUB-TOTAL: \$ 218.82

TOTAL ALL ROADS: \$ 12,732.74

SCHEDULE OF ITEMS (Timber Sale)

Timber Sale Low Pole Stewardship

Road No. 6305331

Road Name N/A

Length (Miles) 0.63

Item Number	Description	Method of Meas.	Unit	Quantity	S.R.C Unit Price	Total
15101	Mobilization	AQ	Lump Sum	1.00	\$ 1,852.50	\$ 1,852.50
20103	Clearing and grubbing, disposal of tops and limbs f logs f, stumps f	CQ	Acre	1.65	\$ 1,601.63	\$ 2,642.69
30318	Road reconditioning, roadbed, compaction method (a)	CQ	Mile	0.63	\$ 1,352.61	\$ 852.14

SUB-TOTAL: \$ 5,347.33

TOTAL ALL ROADS: \$ 12,732.74

SPECIFICATION LIST

LOW POLE TIMBER SALE		ROAD NUMBER					
		6300	6300	6305	6305	6305	
SECTION & TITLE	REV DATE	131	140	311	315	331	
101 - Terms, Format, and Definitions	2013	X	X	X	X	X	
101 00 FLH FP-03 Corrections	7/25/2005	X	X	X	X	X	
101 01 Meaning of Terms	1/22/2009	X	X	X	X	X	
101 01 Meaning of Terms	1/22/2009	X	X	X	X	X	
101 03 Abbreviations and Symbols	6/16/2006	X	X	X	X	X	
101 04 Definitions	11/6/2007	X	X	X	X	X	
101 04 Symbols	3/29/2007	X	X	X	X	X	
102 - Bid, Award, And Execution of Contract	2013	X	X	X	X	X	
102 00 Delete 102 in its entirety	2/16/2005	X	X	X	X	X	
103 - Scope of Work	2013	X	X	X	X	X	
103 00 Intent of Contract	2/16/2005	X	X	X	X	X	
104 - Control of Work	2013	X	X	X	X	X	
104 00 Deletions to 104	6/16/2006	X	X	X	X	X	
104 03 Specifications and Drawings.	1/22/2009	X	X	X	X	X	
104 03 Specifications and Drawings	2/22/2005	X	X	X	X	X	
104 06 Use of Roads by Contractor	2/17/2005	X	X	X	X	X	
104 07 Other Contracts	2/17/2005	X	X	X	X	X	
105 - Control of Material	2013	X	X	X	X	X	
105 02 Material Sources	1/18/2007	X	X	X	X	X	
Contractor provided material							
105 02 sources	3/8/2007	X	X	X	X	X	
105 05 Use of Material Found in the Work	5/12/2004	X	X	X	X	X	
106 - Acceptance of Work	2013	X	X	X	X	X	
Conformity with Contract							
106 01 Requirements	7/31/2007	X	X	X	X	X	
106 07 Partial and Final Acceptance	5/11/2004	X	X	X	X	X	
107 - Legal Relations and Responsibility to the Public	2013	X	X	X	X	X	
107 05 Responsibility for Damage Claims	5/11/2004	X	X	X	X	X	
107 06 Contractor Responsibility for Work	6/16/2006	X	X	X	X	X	
107 08 Sanitation, Health & Safety	3/29/2005	X	X	X	X	X	
107 09 Legal Relationship of the Parties	6/16/2006	X	X	X	X	X	
107 10 Environmental Protection	6/16/2006	X	X	X	X	X	
Protection of Forests, Parks, and							
107 11 Public Lands	2/17/2005	X	X	X	X	X	
108 - Prosecution and Progress	2013	X	X	X	X	X	
108 00 Delete Section 108 in entirety	2/16/2005	X	X	X	X	X	
109 - Measurement and Payment	2013	X	X	X	X	X	
109 00 Deletions	2/17/2005	X	X	X	X	X	
Measurement Terms and							
109 02 Definitions	6/16/2006	X	X	X	X	X	
151 - Mobilization	2013	X	X		X		
151 03 Payment	8/5/2005	X	X		X		
155 - Schedules for Construction Contracts	2013	X	X	X	X	X	
Contractor Quality Control Plan,							
155 00 Records	5/11/2004	X	X	X	X	X	
201 - Clearing and Grubbing	2013	X	X	X	X	X	

SPECIFICATION LIST

LOW POLE TIMBER SALE		ROAD NUMBER					
		6300	6300	6305	6305	6305	
SECTION & TITLE	REV DATE	131	140	311	315	331	
201 00 Deletions	8/5/2009	X	X	X	X	X	
201 01 Description	2/18/2005	X	X	X	X	X	
201 04 Clearing	2/22/2005	X	X	X	X	X	
201 06 Disposal	2/18/2005	X	X	X	X	X	
201 06 Disposal	11/9/2005	X	X	X	X	X	
303 - Road Reconditioning	2013	X	X	X	X	X	
303 00 Complete Specification	5/11/2007	X	X	X	X	X	
Aggregate & Asphalt Surface							
303 06 Reconditioning	8/5/2008	X	X	X	X	X	
303 11 Measurement	3/29/2005	X	X	X	X	X	
718 - Traffic Signing and Marking Material	2013	X	X	X	X	X	
718 05 Aluminum Panels	8/5/2009	X	X	X	X	X	

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Preface

Preface_wo_03_15_2004_m

Delete all but the first paragraph and add the following:

The Forest Service, US Department of Agriculture has adopted FP-03 for construction of National Forest System Roads.

101 - Terms, Format, and Definitions

101.00_nat_us_07_25_2005

101.01_nat_us_01_22_2009

101.01 Meaning of Terms

Delete all references to the TAR (Transportation Acquisition Regulations) in the specifications.

101.01_nat_us_01_22_2009

101.01 Meaning of Terms

Delete all references to the FAR (Federal Acquisition Regulations) in the specifications.

101.03_nat_us_06_16_2006

101.03 Abbreviations.

Add the following to (a) Acronyms:

AFPA	American Forest and Paper Association
MSHA	Mine Safety and Health Administration
NIST	<u>National Institute of Standards and Technology</u>
NESC	National Electrical Safety Code
WCLIB	West Coast Lumber Inspection Bureau

Add the following to (b) SI symbols:

mp	Milepost
ppm	Part Per Million

101.04_nat_us_03_29_2007

101.04 Definitions.

Delete the following definitions and substitute the following:

Bid Schedule--The Schedule of Items.

Bridge--No definition.

Contractor--The individual or legal entity contracting with the Government for performance of prescribed work. In a timber sale contract, the contractor is the "purchaser".

Culvert--No definition.

Right-of-Way--A general term denoting (1) the privilege to pass over land in some particular line (including easement, lease, permit, or license to occupy, use, or traverse public or private lands), or (2) Real property necessary for the project, including roadway, buffer areas, access, and drainage areas.

Add the following:

Adjustment in Contract Price--"Equitable adjustment," as used in the Federal Acquisition Regulations, or "construction cost adjustment," as used in the Timber Sale Contract, as applicable.

Change--"Change" means "change order" as used in the Federal Acquisition Regulations, or "design change" as used in the Timber Sale Contract.

Design Quantity--"Design quantity" is a Forest Service method of measurement from the FS-96 *Forest Service Specifications for the Construction of Roads and Bridges*. Under these FP specifications this term is replaced by the term "Contract Quantities".

Forest Service--The United States of America, acting through the Forest Service, U.S. Department of Agriculture.

Neat Line--A line defining the proposed or specified limits of an excavation or structure.

Pioneer Road--Temporary construction access built along the route of the project.

Purchaser--The individual, partnership, joint venture, or corporation contracting with the Government under the terms of a Timber Sale Contract and acting independently or through agents, employees, or subcontractors.

Protected Streamcourse--A drainage shown on the plans or timber sale area map that requires designated mitigation measures.

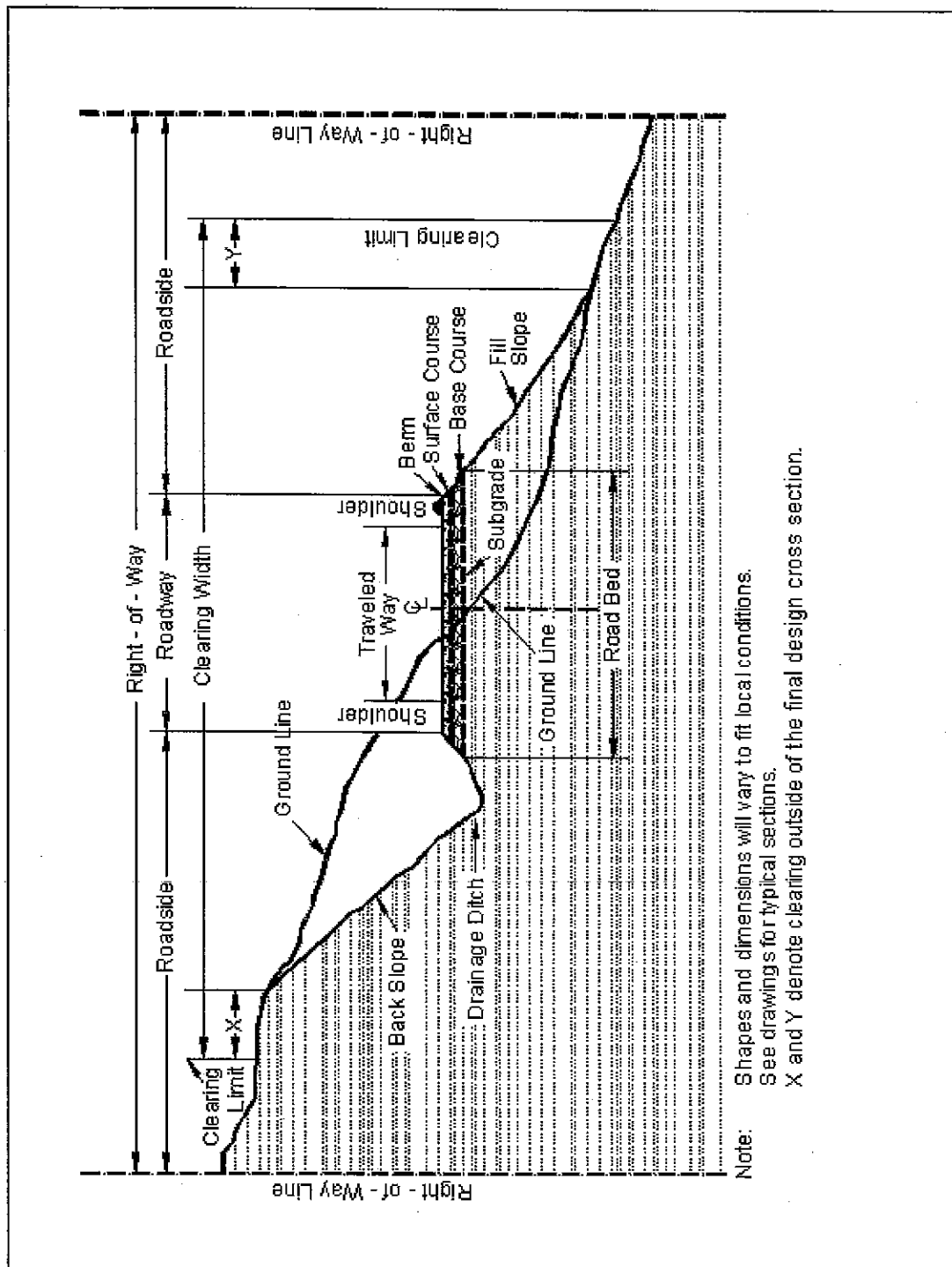
Road Order--An order affecting and controlling traffic on roads under Forest Service jurisdiction. Road Orders are issued by a designated Forest Officer under the authorities of 36 CFR, part 260.

Schedule of Items--A schedule in the contract that contains a listing and description of construction items, quantities, units of measure, unit price, and amount.

Utilization Standards--The minimum size and percent soundness of trees described in the specifications to determine merchantable timber.

Add Figure 101-1—Illustration of road structure terms:

Figure 101-1—Illustration of road structure terms.



101.04 Definitions.

Delete the following definitions:

Contract Modification

Day

Notice to Proceed

Solicitation

102 - Bid, Award, and Execution of Contract

102.00_nat_us_02_16_2005

102 Bid, Award, and Execution of Contract

Delete Section 102 in its entirety.

103 - Scope of Work

103.00_nat_us_02_16_2005

Deletions

Delete all but subsection 103.01 Intent of Contract.

104 - Control of Work

104.00_nat_us_06_16_2006

Deletions

Delete Sections 104.01, 104.02, and 104.04.

104.03_nat_us_01_22_2009

104.03 Specifications and Drawings.

Delete 104.03.

104.03_nat_us_02_22_2005

104.03 Drawings and Specifications

Delete subsection 104.03

104.06_nat_us_02_17_2005

Add the following subsection:

104.06 Use of Roads by Contractor

The Contractor is authorized to use roads under the jurisdiction of the Forest Service for all activities necessary to complete this contract, subject to the limitations and authorizations designated in the Road Order(s) or described in the contract, when such use will not damage the roads or national forest resources, and when traffic can be accommodated safely.

104.07_nat_us_02_17_2005

Add Subsection.

104.07 Other Contracts.

Example: The Federal Highway Administration is administering and is intending to award a contract for the reconstruction of 3 1/2 miles of Salmon la Sac Road approximately 5 miles north of this project. Schedule activities to assure no delays or interference to the operations of the Federal Highway Administration contract.

105 - Control of Material

105.02_nat_us_01_18_2007

105.02 Material Sources.

105.02(a) Government-provided sources.

Add the following:

Comply with the requirements of 30 CFR 56, subparts B and H. Use all suitable material for aggregate regardless of size unless otherwise designated. When required, re-establish vegetation in disturbed areas according to section 625.

105.02_nat_us_03_08_2007

105.02 Material Sources.

105.02(a) Contractor-provided sources.

Add the following:

All material (e.g., soil, gravel, sand, borrow, aggregate, etc.) transported onto National Forest System land or incorporated into the work will be weed-free. The Contracting Officer may request written documentation of methods used to determine the weed-free status of any and all materials furnished by the contractor. Contractor-provided expertise and methods to establish weed-free status must be appropriate for the weeds of concern in the local area. The following applies to this contract:

A Forest Service weed specialist will inspect proposed sources to determine weed-free status. Provide the Contracting Officer written notification of proposed material sources 14 days prior to use. Written approval of the specific source will be provided to the contractor. If weed species are present in the proposed source, appropriate mitigation measures may allow conditional use of the source as required by the Contracting Officer.

105.05_nat_us_05_12_2004

105.05 Use of Material Found in the Work.

Delete 105.05 (a) and (b) and the last sentence of the second paragraph and substitute the following:

Materials produced or processed from Government lands in excess of the quantities required for performance of this contract are the property of the Government. The Government is not obligated to make reimbursement for the cost of producing these materials.

106 - Acceptance of Work

106.01_nat_us_07_31_2007

106.01 Conformity with Contract Requirements.

Delete Subsection 106.01 and substitute the following:

References to standard test methods of AASHTO, ASTM, GSA, and other recognized standard authorities refer to the methods in effect on the date of solicitation for bids.

Perform all work to the lines, grades, cross-sections, dimensions, and processes or material requirements shown on the plans or specified in the contract.

Incorporate manufactured materials into the work according to the manufacturer's recommendations or to these specifications, whichever is more strict.

Plan dimensions and contract specification values are the values to be strived for and complied with as the design values from which any deviations are allowed. Perform work and provide material that is uniform in character and reasonably close to the prescribed value or within the specified tolerance range. The purpose of a tolerance range is to accommodate occasional minor variations from the median zone that are unavoidable for practical reasons.

When standard manufactured items are specified (such as fence, wire, plates, rolled shapes, pipe conduits, etc., that are identified by gauge, unit mass, section dimensions, etc.), the identification will be considered to be nominal masses or dimensions. Unless specific contract tolerances are noted, established manufacturing tolerances will be accepted.

The Government may inspect, sample, or test all work at any time before final acceptance of the project. When the Government tests work, copies of test reports are furnished to the Contractor upon request. Government tests may or may not be performed at the work site. If Contractor testing and inspection is verified by the Government, the Contractor's results may be used by the Government to evaluate work for acceptance. Do not rely on the availability of Government test results for process control.

Acceptable work conforming to the contract will be paid for at the contract unit bid price. Four methods of determining conformity and accepting work are described in Subsections 106.02 to 106.05 inclusive. The primary method of acceptance is specified in each Section of work. However, work may be rejected at any time it is found by any of the methods not to comply with the contract.

Remove and replace work that does not conform to the contract, or to prevailing industry standards where no specific contract requirements are noted, at no cost to the Government.

(a) Disputing Government test results. **If the accuracy of Government test results is disputed, promptly inform the CO. If the dispute is unresolved after reasonable steps are taken to resolve the dispute, further evaluation may be obtained by written request. Include a narrative describing the dispute and a proposed resolution protocol that addresses the following:**

- (1) Sampling method;
- (2) Number of samples;
- (3) Sample transport;
- (4) Test procedures;
- (5) Testing laboratories;
- (6) Reporting;
- (7) Estimated time and costs; and
- (8) Validation process.

If the evaluation requires additional sampling or testing be performed, mutually agree with the Government on witnessing procedures and on sampling and testing by a third party laboratory. Use a third party laboratory accredited by the AASHTO accreditation program. Provide proof of the laboratory's accreditation for the test procedures to be used. Do not use the same laboratory that produced the disputed Government test results or that produced the test results used as a basis for the dispute.

The CO will review the proposed resolution protocol and may modify it before final approval and execution.

The Government will use the approved resolution protocol test results to determine the validity of the disputed testing. If the Government test results are validated, the Contractor will be responsible for all costs associated with developing and performing the resolution protocol. If the Government test results are not validated, the Government will be responsible for all costs associated with developing and performing the resolution protocol. If the validity of the Government test results cannot be determined, the Contractor and Government will equally share all costs associated with developing and carrying out the resolution protocol.

(b) Alternatives to removing and replacing non-conforming work. As an alternative to removal and replacement, the Contractor may submit a written request to:

- (1) Have the work accepted at a reduced price; or
- (2) Be given permission to perform corrective measures to bring the work into conformity.

The request must contain supporting rationale and documentation. Include references or data justifying the proposal based on an evaluation of test results, effect on service life, value of material or work, quality, aesthetics, and other tangible engineering basis. The CO will determine disposition of the nonconforming work.

106.07_nat_us_05_11_2004

106.07 Delete

Delete subsection 106.07.

107 - Legal Relations and Responsibility to the Public

107.05_nat_us_05_11_2004

107.05 Responsibility for Damage Claims.

Delete the entire subsection.

107.06_nat_us_06_16_2006

107.06 Contractor's Responsibility for Work.

Delete the following from the first paragraph.

“except as provided in Subsection 106.07”.

107.08_nat_us_03_29_2005

107.08 Sanitation, Health, and Safety

Delete the entire subsection.

107.09_nat_us_06_16_2006

107.09 Legal Relationship of the Parties.

Delete the entire subsection.

107.10 Environmental Protection.Add the following:

Design and locate equipment repair shops, stationary refueling sites, or other facilities to minimize the potential and impacts of hazardous material spills on Government land.

Before beginning any work, submit a Hazardous Spill Plan. List actions to be taken in the event of a spill. Incorporate preventive measures to be taken, such as the location of mobile refueling facilities, storage and handling of hazardous materials, and similar information. Immediately notify the CO of all hazardous material spills. Provide a written narrative report form no later than 24 hours after the initial report and include the following:

- Description of the item spilled (including identity, quantity, manifest number, and other identifying information).
- Whether amount spilled is EPA or state reportable, and if so whether it was reported, and to whom.
- Exact time and location of spill including a description of the area involved.
- Containment procedures.
- Summary of any communications the Contractor had with news media, Federal, state and local regulatory agencies and officials, or Forest Service officials.
- Description of clean-up procedures employed or to be employed at the site including final disposition and disposal location of spill residue.

When available provide copies of all spill related clean up and closure documentation and correspondence from regulatory agencies.

The Contractor is solely responsible for all spills or leaks that occur during the performance of this contract. Clean up spills or leaks to the satisfaction of the CO and in a manner that complies with Federal, state, and local laws and regulations.

107 - Legal Relations and Responsibility To the Public**107.11 Protection of Forests, Parks, and Public Lands:**Add the following:

Add appropriate fire plan and equipment language.

108 - Prosecution and Progress

108.00_nat_us_02_16_2005

108 Delete.

Delete Section 108 in its entirety.

109 - Measurement and Payment

109.00_nat_us_02_17_2005

109 Deletions

Delete the following entire subsections:

109.06 Pricing of Adjustments.

109.07 Eliminated Work.

109.08 Progress Payments.

109.09 Final Payment.

109.02_nat_us_06_16_2006

109.02 Measurement Terms and Definitions.

(b) Contract quantity.

Add the following:

Contract quantities will be adjusted only when there are errors in the original design of 15% or more.

Change the following:

“(b) Cubic yard” to “(c) Cubic yard”.

Add the following definition:

(p) Thousand Board Feet (Mbf). 1,000 board feet based on nominal widths, thickness, and extreme usable length of each piece of lumber or timber actually incorporated in the job. For glued laminated timber, 1,000 board feet based on actual width, thickness, and length of each piece actually incorporated in the job.

151 - Mobilization

151.03_nat_us_08_05_2005

151.03 Payment

Delete the entire subsection and add the following:

151.03 Payment

Mobilization is considered an indirect cost of this contract and will not be compensated as a separate work item.

152 - Construction Survey and Staking

152.00_nat_us_08_05_2005

Description

152.01(c) Material.

Add the following:

Use required stake dimensions and materials. Pre-paint the top 2 inches of all stakes and lath, or mark them with plastic flagging. Use designated colors for paint or flagging. Mark all stakes with a stake pencil that leaves a legible imprint, or with waterproof ink.

Do not use aerosol spray paints.

Use moisture-resistant paper for survey notes. Keep notes in books with covers that will protect the contents and retain the pages in numerical sequence.

Construction Requirements

152.02 General.

Delete the first two sentences.

Add the following:

When indicated on the plans, a preliminary survey line has been established on the ground. The project location line is established by offsets from this preliminary line.

Delete second sentence in second paragraph and replace with the following:

Reestablish missing reference, control lines, or stakes as necessary to control subsequent construction staking operations

152.03 Survey and Staking Requirements.

(b) Roadway cross-sections.

Replace the first two sentences with the following:

Take roadway cross-sections normal to centerline. When the centerline curve radius is less than or equal to 200 feet, take cross-sections at a maximum centerline spacing of 25 feet. When the centerline curve radius is greater than 200 feet take cross-sections at a maximum centerline spacing of 80 feet.

c) Slope Stakes & References:

Replace section with the following:

Slope stakes and references. When required, locate slope stakes on designated portions of the road. Locate the slope stake catch points and use them to establish clearing limits and slope stake references.

Mark slope stakes with the station, the amount of cut or fill, the horizontal distance to centerline, and the slope ratios.

Place slope reference stakes at least 10 feet outside the clearing limit and mark with the offset distance to the slope stake. Place sight stakes when required.

Prior to clearing and grubbing operations, move the slope stake outside the clearing limit to the slope reference stake. After clearing and grubbing and before excavation, reset the slope stakes in their original position.

Use the designated method to establish the slope stake catchpoint.

- **Method I**—Computed Method. Use the template information shown in the plans or other Government-provided data to calculate the actual location of the catchpoint. The slope stake “catchpoint distance” provided may be used as a trial location to initiate slope staking. Recatch slope stakes on any section that does not match the staking report within the tolerances established in Table 152-2.
- **Method II**—Catchpoint Measurement Method. Determine the location of slope stake catchpoints by measuring the catchpoint distances shown in the plans or other Government-provided data.

(d) Clearing and grubbing limits.

Add the following:

Establish clearing limits on each side of the location line by measuring the required horizontal or slope distances shown in the stake notes. Mark the clearing limits with flagging or tags on trees to be left standing, or on lath. Make markings intervisible, and no more than 90 feet apart.

After establishing clearing limits, move the location line stake outside the clearing limits for station identification purposes, and mark it with horizontal distance to location line

(e) Centerline reestablishment.

Replace with the following:

Reestablish centerline from instrument control points. The maximum spacing between centerline points is 25 feet when the centerline curve radius is less than or equal to 200 feet. When the centerline curve radius is greater than 200 feet, the maximum distance between centerline points is 80 feet.

(g) Culverts.

Replace subsection with the following:

Set culvert reference stakes at all culvert locations. Set a culvert reference stake on the centerline of the culvert 10 feet from each end or beyond the clearing limit, whichever is greater. Record the following on culvert reference stakes:

- (1) Diameter, actual field measured length, and type of culvert.
- (2) The vertical and horizontal distance from the reference stake to the invert at the ends of the culvert.
- (3) Station of actual point where culvert intersects centerline.

When required, stake headwall for culverts by setting a hub with a guard stake on each side of the culvert on line with the face of the headwall. Perform this work after clearing is completed.

152.03 (I) Miscellaneous Survey and Staking.

Add the following:

- (11) Cattleguards
- (12) Drain Dips
- (13) Erosion Control Measures

Replace Table 152-1 with the following two tables:

Table 152-1 Tolerances for reestablishing P-line, traverse, and elevations.

Precision Class	Minimum Position Closure	Angular Accuracy (\pm)	L-Line Tangent Control Points^a (\pm)	Vertical Closure^b (\pm)
A (Bridges)	1/10,000	2 sets, direct/reverse 10 second rejection limit	N/A	0.02 ft or 0.02ft/1000ft ^c
B	1/5,000	2 sets, direct/reverse 20 second rejection limit	0.1 ft	0.02 ft or 0.02ft/1000ft ^c
C	1/1,000	1 set, direct/reverse 1 minute rejection limit	0.2 ft	0.5ft/1000ft ^c
D	1/300	Foresight and backsight; 15 minute rejection limit ^c	0.4 ft	1.0ft/1000ft ^c
E	1/100	Foresight and backsight; 30 minute rejection limit ^c	0.8 ft	1.0ft/1000ft ^c
<p>a. Accuracy of offset measurement.</p> <p>b. Determine vertical closures at intervals not to exceed 2000 ft as measured along centerline.</p> <p>c. Use greater value.</p>				

Table 152-2 Cross section and slope stake tolerances.

Item	Tolerances				
	A	B	C	D	E
Allowable deviation of cross-section line projection from a true perpendicular to tangents, a true bisector of angle points, or a true radius of curves	(\pm)2°	(\pm)3°	(\pm)3°	(\pm)5°	(\pm)5°
Take cross-sections topography measurements so that variations in ground from a straight line connecting the cross-section points will not exceed	0.5 ft	1.0 ft	2.0 ft	2.0 ft	3.0 ft
Horizontal and vertical accuracy for cross-sections, in feet or percentage of horizontal distance measured from traverse line, whichever is greater.	0.1 ft or 0.4%	0.15 ft or 0.6%	0.2 ft or 1.0%	0.2 ft or 1.0%	0.3 ft or 1.0%
Horizontal and vertical accuracy for slope stake, slope stake references, and clearing limits. In feet or percentage of horizontal distance measured from centerline or reference stake, whichever is greater.					
Slope reference stakes and slope stakes.	0.1 ft or 0.4%	0.15 ft or 0.6%	0.2 ft or 1.0%	0.2 ft or 1.0%	0.3 ft or 1.0%
Clearing limits	1.0 ft	1.0 ft	1.0 ft	1.5 ft	2.5 ft

155 - Schedules for Construction Contracts

155.00_nat_us_05_11_2004

155 Delete.

Delete Section 155 in its entirety.

201 - Clearing and Grubbing

201.00_nat_us_08_05_2009

201.02 Material:

Delete Tree wound dressing material reference.

201.03 General.

Delete the last sentence.

201.04 Clearing.

Delete the last sentence of (d).

201.01_nat_us_02_18_2005

201.01 Description

Replace with the following

This work consists of clearing and grubbing within clearing limits and other designated areas.

201.04_nat_us_02_22_2005

201.04 Clearing. (c)

Delete paragraph (c) and replace with the following:

(c) In areas outside the excavation, embankment, and slope rounding limits, cut stumps to within 12 inches or one-third of the stump diameter of the ground, whichever is higher, measured on the side adjacent to the highest ground. For timber sales, stump heights will meet the requirements of the Timber Sale contract.

201.04 Clearing.

Delete subsection (d) and replace with the following:

(d) Do not cut vegetation less than 3 feet tall and less than 3 inches in diameter, that is within the clearing limits but beyond the roadway and not in a decking area, and that does not interfere with sight distance along the road.

Add the following:

(e) Trim branches of remaining trees or shrubs to give a clear height of 14 feet above the roadbed unless otherwise indicated. Trim tree limbs as near flush with the trunk as practicable.

(f) Remove brush from log decks. Deck logs so that logs are piled parallel to one another; can be removed by standard log loading equipment; will not damage standing trees; will not interfere with drainage, and will not roll. Keep logs in log decks free of brush and soil.

201.06_nat_us_11_09_2005

201.06 Disposal

Delete the first sentence of this paragraph and substitute the following:

Limb and deck logs that meet utilization standards at locations approved by the CO or otherwise designated. Deck logs according to 201.04 (f).

201.06_nat_us_02_18_2005

201.06 Disposal.

Delete the first sentence of this subsection and substitute the following:

Dispose of merchantable timber designated for removal according to the provisions of the timber sale contract.

303 - Road Reconditioning

303.00_0605_us_05_11_2007

Delete Section 303 in its entirety and replace with the following.

Description

303.01 This work consists of reconditioning ditches, shoulders, roadbeds, parking areas, approach road intersections, cattleguards, asphalt surfaces and aggregate surfaces. Clean and maintain all drainage structures.

Material

303.02 Conform to the following Subsection:

Water 725.01

Construction Requirements

303.03 Ditch Reconditioning. Remove all slide material, sediment, vegetation, and other debris from the existing ditches and culvert inlets and outlets. Reshape ditches and culvert inlets and outlets to achieve positive drainage and a uniform ditch width, depth, and grade. Dispose of waste as shown on the plans.

303.04 Shoulder Reconditioning. Repair soft and unstable areas according to Subsection 204.07. Remove all slide material, vegetation, and other debris from existing shoulders including shoulders of parking areas, turnouts, and other widened areas. Dispose of waste as shown on the plans.

303.05 Roadbed Reconditioning Repair soft and unstable areas according to Subsection 204.07. Remove all organic, deleterious material larger than 6 inches from the top 6 inches of subgrade. Dispose of waste as shown on the plans. Scarify and shape the traveled way and shoulders at locations and to the depth and width designated on the plans. Remove surface irregularities and shape to provide a uniform surface.

Dispose of rock larger than 4 inches brought to the surface during scarification in areas designated on the plans.

For portions of roads not requiring scarification, the roadbed may contain rocks larger than 4 inches provided they do not extend above the finished roadbed surface. Reduce in place or

remove rock extending above the finished roadbed surface. Dispose of removed rock in areas designated on the plans.

Compact using the following method as specified:

(a) Layer Placement Method (Hauling and Spreading Equipment). Place material by end dumping to the minimum depth needed for operation of spreading equipment. Level and smooth each embankment layer before placing the next layers. Operate hauling and spreading equipment uniformly over the full width of each layer. Construct a solid embankment with adequate compaction by working smaller rock and fines in with the larger rocks to fill the voids, and by operating hauling and spreading equipment uniformly over the full width of each layer as the embankment is constructed.

(b) Layer Placement (Roller Compaction) Method. Place material by end dumping to the minimum depth needed for operation of spreading equipment. Adjust the moisture content of the material to obtain a mass that will not visibly deflect under the load of the hauling and spreading equipment. Operate compaction equipment over the full width of each layer until visible deformation of the layer ceases or, in when a sheepsfoot roller is used, the roller “walks out” of the layer. Make at least three complete passes. . Use rollers that meet the following requirements:

- (1) Steel wheeled rollers, other than vibratory, capable of exerting a force of not less than 250 pounds per inch of width of the compression roll or rolls.
- (2) Vibratory steel wheeled rollers equipped with amplitude and frequency controls with a minimum weight of 6 tons, specifically designed to compact the material on which it is used.
- (3) Pneumatic-tired rollers with smooth tread tires of equal size that will provide a uniform compacting pressure for the full width of the roller and capable of exerting a ground pressure of at least 80 psi.

303.06 Aggregate Surface Reconditioning. Repair soft and unstable areas to the full depth of the aggregate surface and according to Subsection 204.07. Scarify to the depth and width shown on the plans, and remove surface irregularities. Reshape, finish, and compact the entire aggregate surface according to Section 301, Section 308, Section 321, or Section 322 as applicable.

303.07 Roadway Reconditioning. Perform all the applicable work described in Subsections 303.03 through 303.06.

Maintain the existing cross slope or crown unless otherwise shown on the plans. Establish a blading pattern that will retain the surfacing on the roadbed and provide a through mixing of the materials within the completed surface width.

Blade and shape the subgrade for both surfaced and unsurfaced roads when moisture content is suitable for compaction.

303.08 Pulverizing. Scarify the surface to the designated depth and width. Pulverize all material to a size one and one half times the maximum sized aggregate or to 1½ inches, whichever is greater. Mix, spread, compact, and finish the material according to Section 322.

303.09 Acceptance. Road reconditioning work will be evaluated under Subsections 106.02 and 106.04.

Measurement

303.10 Measure the Section 303 items listed in the Schedule of Items according to Subsection 109.02 and the following as applicable.

Measure ditch reconditioning and shoulder reconditioning by the mile, by the station or foot horizontally along the centerline of the roadway for each side of the roadway.

Measure roadbed reconditioning, aggregate surface reconditioning, roadway reconditioning, and pulverizing by the mile, by the station, or by the square yard.

Payment

303.11 The accepted quantities will be paid at the contract price per unit of measurement for the Section 303 pay items listed in the bid schedule. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

303.06_nat_us_08_05_2008

303.06 Aggregate Surface Reconditioning.

Delete and replace with the following:

303.06 Asphalt and Aggregate Surface Reconditioning.

Repair soft and unstable areas to the full depth of the aggregate surface and according to Subsection 204.07. Scarify to the depth of the aggregate surface or to a depth of 6 inches, whichever is less, and remove surface irregularities. Reshape, finish, and compact the entire aggregate surface according to Subsection 301.05, Subsection 321.05, or Subsection 322.05 as applicable.

For asphalt surfaces, clean the existing surface of all loose material, dirt, or other deleterious substances by approved methods. Remove and dispose of unsuitable material that shows evidence of distress, excess asphalt material, or settlement in the roadbed. Patch the areas with approved material that conforms to and is compatible with the adjacent pavement structure. Perform the patch work according to Section 301, 404, 430, or other sections as applicable for the layer or courses being repaired. Clean and seal cracks in the existing asphalt surface according to Subsection 414.05. Correct surface irregularities exceeding 6 inches in depth with a specified aggregate. Place and compact the aggregate according to Subsections 301.04 and 301.05. Prelevel other dips, depressions, sags, excessive or nonexistent crown, or other surface irregularities with asphalt concrete according to Section 404. Spread and compact the asphalt concrete in layers parallel to the grade line not to exceed 2 inches in compacted depth.

Delete Table 303-1 and replace with the following:

**Table 303-1
Sampling and Testing Requirements**

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Existing Roadway	Measured and tested for conformance (106.04)	Moisture-density Method D	—	AASHTO T 99 (1)	1 per each mixture or change in material	Processed material before incorporating in work	Yes, when requested	Before using in work
		Moisture-density Method E	—	R-1 Marshall	"	"	"	"
		Moisture-density Method F	—	AASHTO T 180(1)	"	"	"	"
		Moisture-density Method G	—	R-1 Marshall	"	"	"	"
		In-place density & moisture content	—	AASHTO T 310 or other approved procedures	1 per 3000 yd ²	In-place	—	Before placing next layer

(1) Minimum of 5 points per proctor.

303.10 Measurement

Modify the second paragraph as follows:

Measure ditch reconditioning and shoulder reconditioning by the mile, station, or foot horizontally along the centerline of the roadway for each side of the roadway.

718 - Traffic Signing and Marking Material

718.05_nat_us_08_05_2009

718.05 Aluminum Panels

Delete the third paragraph and replace with the following:

Clean, degrease and properly prepare the panels according to methods recommended by the sheeting manufacturer. Conversion coatings will conform to ASTM B-921 or ASTM B-449.

UNITED STATES DEPARTMENT OF AGRICULTURE FOREST SERVICE

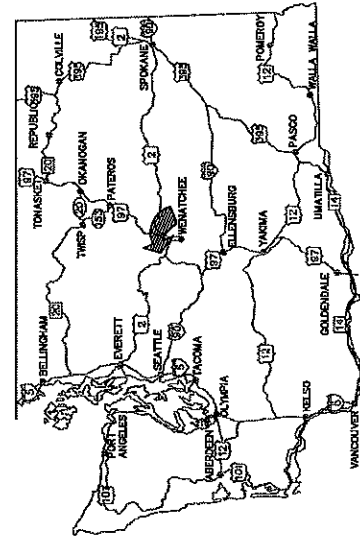


REGION 6
OKANOGAN - WENATCHEE NATIONAL FORESTS

Wenatchee River Ranger District

CONSTRUCTION DRAWINGS FOR

Low Pole T.S.



KEY MAP OF WASHINGTON SHOWING LOCATION OF PROJECT

INDEX TO SHEETS

SHEET NO.	DESCRIPTION
1	TITLE
2	VICINITY MAP
3	ESTIMATE OF QUANTITIES
4	NOTES, SYMBOLS & TYPICAL DETAILS
5	ROAD STRUCTURE DETAILS
6	CLEARING DETAILS
7	DRAIN DIP DETAILS
8	WORK DESCRIPTIONS

ROAD NO.	LENGTH MILES	RECONST./CONST.	SHEET NO.
6300131	0.51	RECONST	8
6300140	0.27	RECONST	8
6305311	0.53	RECONST	8
6305315	0.05	RECONST	8
6305331	0.63	RECONST	8

TOTAL CONSTRUCTION 0 MILES
TOTAL RECONSTRUCTION 1.99 MILES

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
R-6
PACIFIC NORTHWEST REGION

Reviewed and Approved By
District Ranger
Forest Engineer

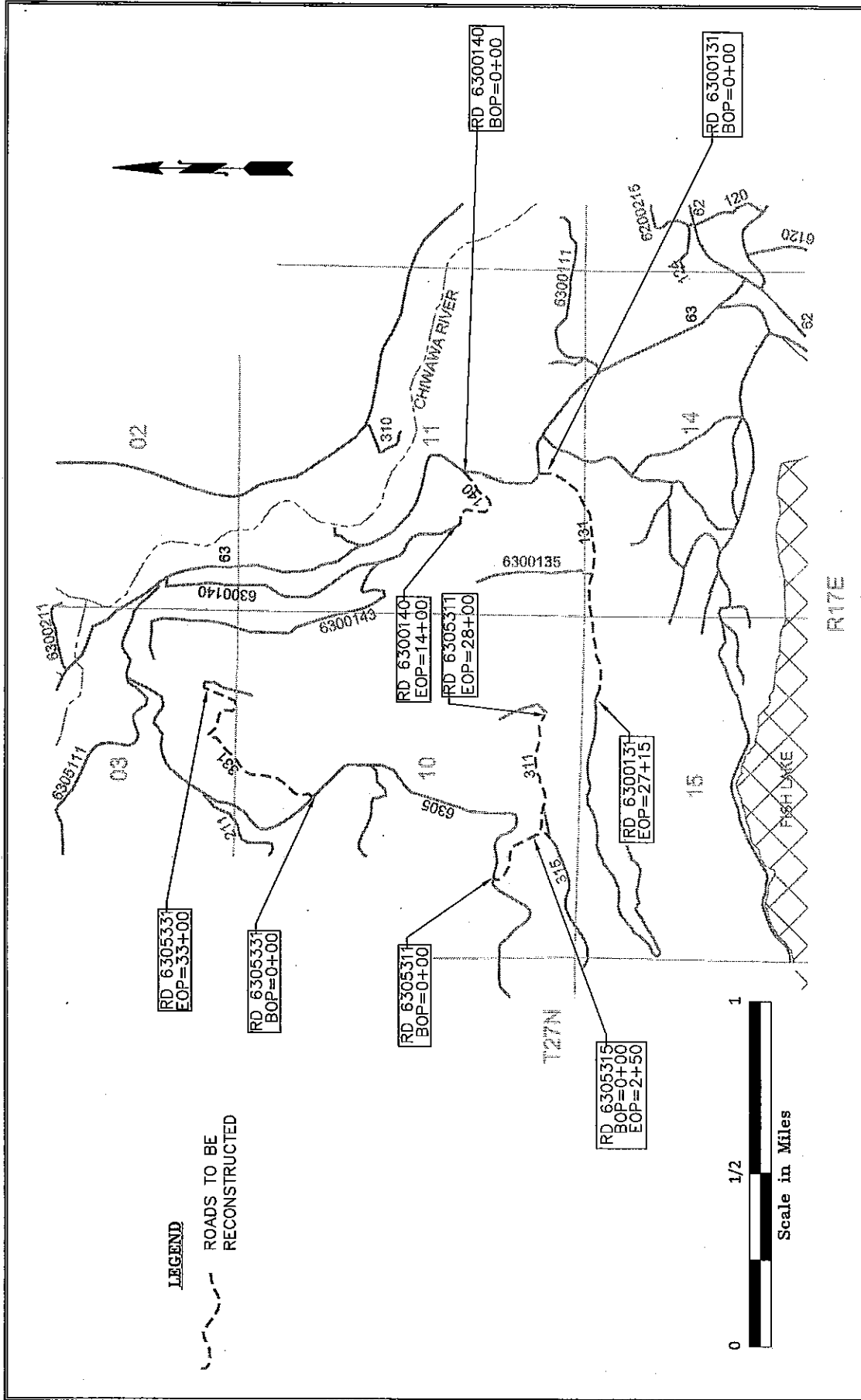
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Recommended and Approved By
Zone Engineer
Date

Designed By
Reviewed By

Date
Date

Sheet
Title
Sheet 1



 U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE R-6 PACIFIC NORTHWEST REGION	District WENATCHEE RIVER RANGER DISTRICT	Forest Okanogan-Wenatchee National Forests	Sheet Title Vicinity Map	Sheet 2
	Project Low Pole T.S.			

Notes, Symbols & Typical Details

DISPOSAL OF MERCHANTABLE TIMBER (TIMBER MEETING UTILIZATION STANDARDS): Merchantable timber (timber meeting Utilization Standards) shall be decked in locations shown on drawings, within reach of standard loading equipment.

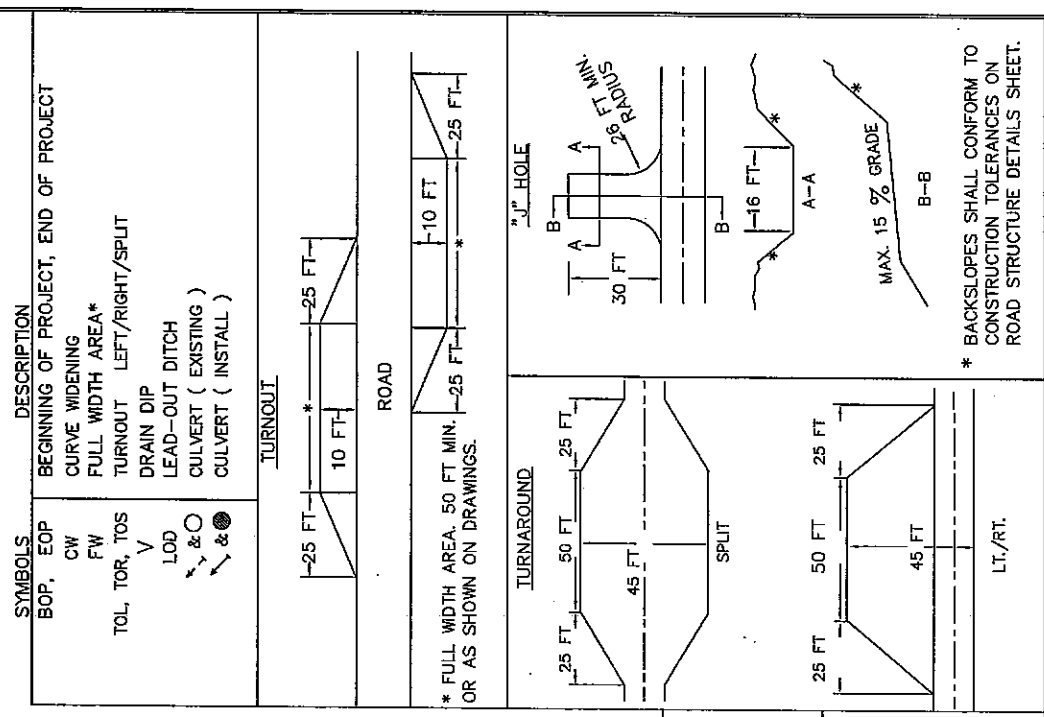
To meet minimum tree specifications, trees must be equal or exceed 7-inches DBH and contain at least one minimum piece. Such timber shall be felled and bucked into log lengths not exceeding 52 ft. Pieces (logs) shall also be considered as meeting Utilization Standards, and be required to be decked, when such pieces would have met Utilization Standards if bucking lengths were varied to include such material. Merchantable timber shall be limbed and bucked. Log decks shall be free of slash and debris. Material not meeting Utilization Standards, including any material remaining after deck removal, shall be disposed of as other construction slash pursuant to Specification 201.04.

MINIMUM UTILIZATION STANDARDS:

SEE AT.2- Volume Estimate and Utilization Standards.

DISPOSAL OF UNMERCHANTABLE TIMBER: Logs not meeting Utilization Standards which are suitable for use as firewood, may be scattered and decked. Material not suitable for firewood shall be treated by other slash methods.

STAKES: All stakes shall have the following minimum nominal dimensions. Hubs shall be 2 in. X 2 in. X 8 in. Guard, reference, slope, and other stakes shall be 0.3 in. X 1.5 in. X 18 in. Lath shall be 0.4 in. X 1.5 in. X 3 ft. Other dimensions and materials may be used, such as steel reinforcing bars and metal pins, if approved by the Engineer. The color of paint or flagging, as well as the colors for use on stakes for clearing, reference, structures, and slope staking shall be fluorescent orange. Other colors may be used if approved in writing by the Engineer.



U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
R-6
PACIFIC NORTHWEST REGION

District

**WENATCHEE RIVER
RANGER DISTRICT**

Not To Scale

Forest

**Okanogan-Wenatchee
National Forests**

Project

Low Pole T.S.

Sheet Title

**Notes, Symbols &
Typical Details**

Sheet

4

The diagram illustrates a road cross-section with the following labeled dimensions and features:

- ROADSIDE**: Indicated on both the left and right sides of the road.
- RIGHT-OF-WAY LINE**: Shown at the top and bottom edges of the diagram.
- CLEARING LIMIT**: Marked on the left side, defining the width of the clearing.
- CLEARING WIDTH**: The total width of the cleared area.
- ROADWAY**: The central paved or graded portion of the road.
- TURNOUT**: A section of the road branching off the main roadway.
- BACKSLOPE**: The slope on the left side of the turnout.
- FILL SLOPE**: The slope on the right side of the turnout.
- Dimensions**: Various horizontal and vertical measurements are labeled with letters and numbers:
 - A1, A2, A3**: Horizontal dimensions along the top of the clearing.
 - B, C, D, E, F, G, H**: Horizontal dimensions along the bottom of the clearing.
 - X, Y, N, W**: Other horizontal dimensions.
 - Q**: A vertical dimension.

- (1) CURVE WIDENING, WHEN SPECIFIED, SHALL BE ADDED TO THE INSIDE OF THE CURVE.
- (2) ROADBED WIDTH, FILL WIDENING, TURNOUT LENGTHS, FILL AND BACKSLOPE RATION SHALL BE AS SPECIFIED IN CONSTRUCTION STAKING NOTES AND/OR DRAWINGS.
- (3) SEEDING, FERTILIZING AND/OR MULCHING AREA INCLUDES N, X & Y SHOWN ON THE TYPICALS AND ALL OTHER AREAS DISTURBED BY CONSTRUCTION (INCLUDES BURN BAYS AND DECKING AREAS).
- (4) TURNOUTS, TURNAROUNDS AND CURVE WIDENING SHALL BE SURFACED TO THE SAME DEPTH AS THE TRAVELED WAY AND TO THE DIMENSIONS SPECIFIED IN CONSTRUCTION STAKING NOTES AND/OR DRAWINGS.
- (5) ROADBED TEMPLATE TYPES ARE SHOWN ON THE DRAWINGS AND SHALL BE CONSTRUCTED TO THE FOLLOWING TOLERANCE:

	OUTSLOPE (OUT):	0 TO 5	%
	INSLOPE (IN):	2 TO 5	%
	CROWN (CR):	2 TO 4	%
1			
2			
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(6) FINISHING ROADBED:

d. ROCKS PROTRUDING MORE THAN 4 INCHES ABOVE THE SUBGRADE SHALL BE REDUCED TO THE FINISHED SUBGRADE OR REMOVED. NO OVERSIZE MATERIAL SHALL BE LEFT ON THE SHOULDERS OR IN THE DITCHES. OVERSIZE MATERIAL IS DEFINED AS ROCKS 2 INCHES OR GREATER IN DIMENSION.

(7) DITCHES ARE TO BE CONSTRUCTED/RECONSTRUCTED WHERE NOTED ON THE WORK DESCRIPTION SHEETS OR PLAN AND PROFILE SHEETS.

(SP) CONSTRUCTION TOLERANCE: WHERE CONSTRUCTION STAKES ARE NOT SPECIFIED AND CLEARING LIMIT MARKING IS THE ONLY CONTROL REQUIRED, THE FOLLOWING SHALL GOVERN, UNLESS OTHERWISE SHOWN ON THE DRAWINGS. GRUB STUMPS WITHIN THE ROADWAY AND IN ACCORDANCE WITH FP-03 SPEC. 201.05

ROADBED WIDTH: as shown in column "W", plus curve widening, turnout widths, and fill widening.

CENTERLINE ALIGNMENT -- 50 FOOT MINIMUM RADIUS CURVE.
GRADE -- CHANGE BETWEEN GRADES SHALL BE UNIFORM AND
NOT EXCEED 10 PERCENT IN 25 FEET.

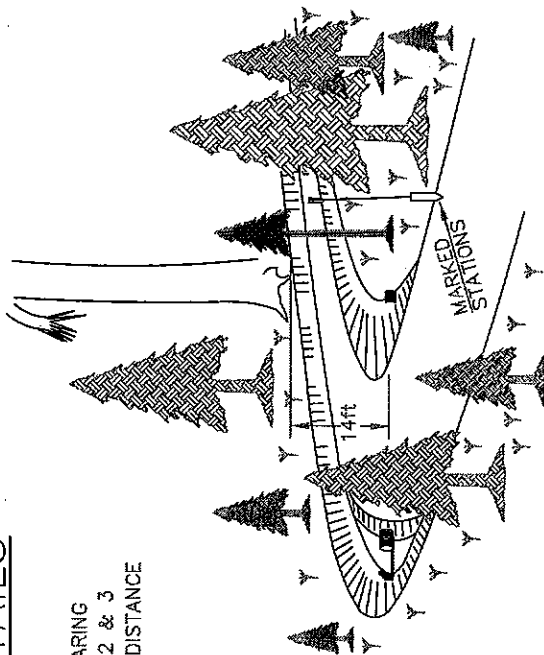
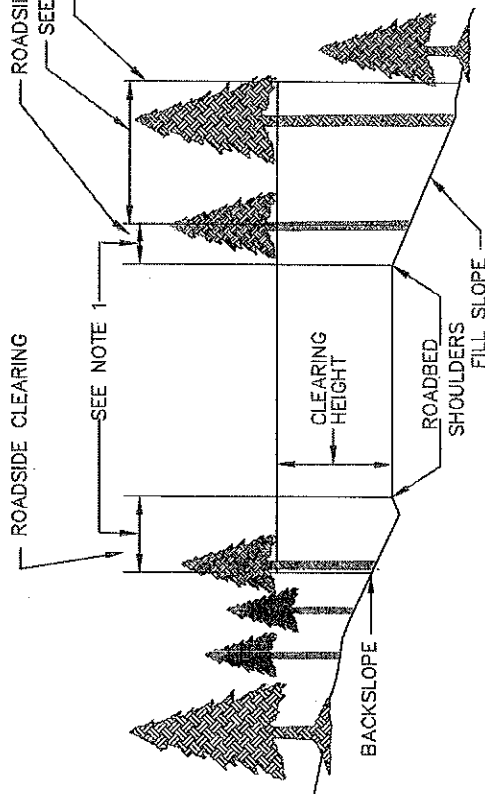
MAXIMUM GRADE: - 10 PERCENT FAVORABLE
- 15 PERCENT ADVERSE

FILL - NATURAL CATCH OBTAINED USING SIDE CAST CONSTRUCTION METHOD.

BACKSLOPE - COMMON 2 H : 1 V, ON FLAT GROUND, CUTS UNDER 3 FEET
COMMON 1 H : 1 V, UNDER 55% TO 3/4 H : 1 V, OVER 55%
RIPPABLE 1/2 H : 1 V
SOLID 1/4 H : 1 V

[illegible]

CLEARING DETAILS



CLEARING LIMITS TYPICAL

NO SCALE

NOTES

1. ALL CONIFERS, HARDWOODS AND BRUSH WITHIN 1 FOOT OF THE OUTSIDE SHOULDER OF THE ROAD AND 5 FEET FROM THE BOTTOM OF THE DITCH OR INSIDE SHOULDER SHALL BE REMOVED.
2. THE AREA OF SIGHT DISTANCE CLEARING WILL BE FROM THE ROADSIDE CLEARING LIMIT, TO A LINE OF SIGHT BETWEEN THE BEGINNING AND ENDING STATIONS MARKED ON THE GROUND. CONIFERS WITHIN THIS AREA SHALL BE THINNED TO APPROXIMATELY A 12 FEET TRUNK SPACING, EXCEPT WHERE MARKED WITH PAINT OR FLAGGING FOR REMOVAL TO AN ALTERNATE SPACING. ALL HARDWOODS & BRUSH WITHIN THESE LIMITS SHALL BE REMOVED.

SIGHT DISTANCE TYPICAL

NO SCALE

3. BRANCHES ON REMAINING CONIFERS SHALL BE TRIMMED FROM THE GROUND LEVEL TO A CLEARING HEIGHT LIMIT 14 FEET ABOVE THE ROADBED OR TO A LIMIT OF 60% OF THE TREE'S HEIGHT, WHICHEVER IS LESS. LIMBS OF VEGETATION SHALL BE CUT SO AS TO NOT PROTRUDE WITHIN THE CLEARING LIMITS.

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE



R-6

PACIFIC NORTHWEST REGION

District

WENATCHEE RIVER
RANGER DISTRICT

Forest

Okanogan-Wenatchee
National Forests

Project

Low Pole T.S.

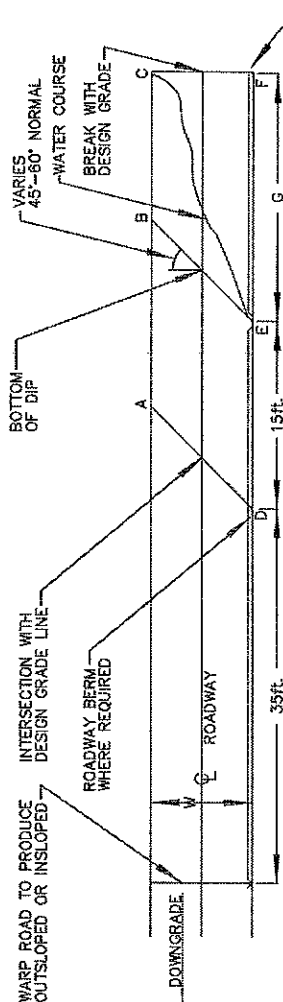
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Clearing Details

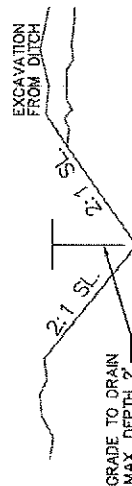
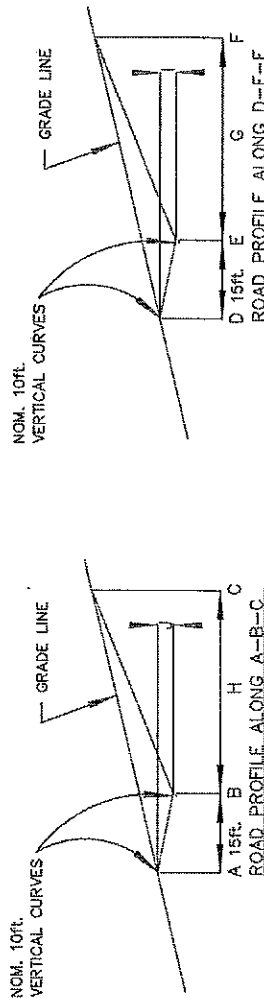
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6

DRAIN DIP DETAILS



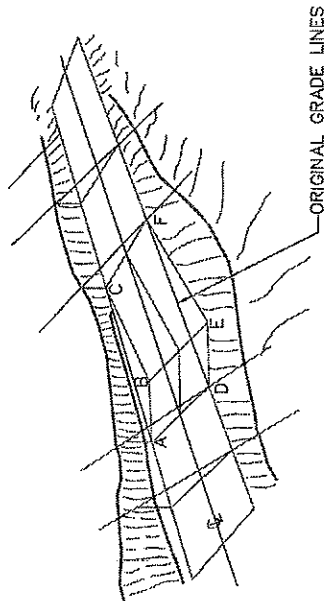
PLAN VIEW



TYPICAL SECTION LEAD-OFF DITCH

ALL NUMBERS ARE IN FEET
UNLESS STATED OTHERWISE

ROAD GRADE	W=12ft. TO 14ft.					W=24ft.				
	G	H	I	J	DEPTH	G	H	I	J	DEPTH
UNDER 3	92	50	0.65	0.30	74	50	1.15	0.30		
7	72	60	0.65	0.20	84	60	1.25	0.20		
9	82	70	0.65	0.10	94	70	1.31	0.10		



PERSPECTIVE VIEW

NOTE: PLAN SHOWN IS FOR OUTSLOPED DRAIN DIP. DIPS MAY BE EITHER INSLOPED OR OUTSLOPED. WHEN INSLOPED, DIPS SHALL DISCHARGE INTO A CULVERT, DROP INLET, OVERSIDE DRAIN OR ONTO NATURAL GROUND. THE MINIMUM CROSS GRADE FROM "B" TO "E" IS 4% GREATER THAN THE ORIGINAL ROAD GRADE.

Road no.: 6300131

Sta.	Work Description
0+00	Begin Road Reconditioning. Begin Clearing Begin Recondition Ditch Left and Right.
0+89	End Ditch Reconditioning Right.
1+99	End Ditch Reconditioning Left.
18+18	Reshape existing Water bar and 30ft Lead Out Ditch.
20+86	Reshape existing Drain Dip. Reshape Ditch Right.
27+15	End Ditch Right. End Clearing. End Road Reconditioning.

Road no.: 6305311

Sta.	Work Description
0+00	Begin Road Reconditioning. Begin Clearing.
28+00	End Road Reconditioning. End Clearing.

Road no.: 6305331

Sta.	Work Description
0+00	Begin Road Reconditioning. Begin Clearing.
40+00	End Road Reconditioning. End Clearing.

Road no.: 6300140

Sta.	Work Description
0+00	Begin Road Reconditioning. Begin Clearing.
14+00	End Road Reconditioning. End Clearing.

Road no.: 6305315

Sta.	Work Description
0.00	Begin Road Reconditioning. Begin Clearing.
2.21	End Road Reconditioning. End Clearing.